CLAIMS

1. A method for managing batches of immunocompetent cells collected from human or animal subjects for deferred use, comprising for each of said human or animal subjects:

- conditioning and preserving successively collected batches of immunocompetent cells, into one or more storage centers, and
- constituting and enhancing from collected batches a personal library of immunocompetent cells, said personal library cumulating a sum of immunity information stored in the collected immunocompetent cells,

characterized in that it further comprises:

- gathering information characteristic of the status of said human or animal subject, effected before or during the immunocompetent cells collection, and
- processing said characteristic information for determining parameters of a deferred-use protocol for immunocompetent cells from said human or animal subject's personal library.

2. The method according to claim 1, characterized in that the status-characterizing information are obtained by processing a blood sample collected from the human or animal subject.

3. The method according to claim 2, characterized in that the status-characterizing information comprise bioelectronic information resulting from processing respective measures of pH, oxidation-reduction potential Rh2 and resistivity ρ of blood previously collected on said human or animal subject (Vincent's bioelectronic method).

4. The method according to claim 1, characterized in that status-characterizing information comprise information obtained by processing

sensible crystallization images of blood previously collected on said human or animal subject.

5. The method according to claim 1, characterized in that the status-characterizing information comprise information obtained from a capillarity study on elements of said human or animal subject's hair system.

6. The method according to claim 1, characterized in that the status-characterizing information and the immunity information stored in the immunocompetent cells of said human or animal subjects are entered into an expert system used for determining parameters for deferred-use protocols.

7. The method according to claim 6, characterized in that said expert system is arranged for providing an interpretation of said status-characterizing information and said immunity information with respect to a particular gene.

8. The method according to claim 1, characterized in that the status-characterizing information processing is arranged for determining respective optimal proportions of different immunocompetent cells in view of their deferred use.

9. The method according to claim 8, characterized in that the status-characterizing information processing provides with a determination of an optimal ratio between lymphocytes T4 and T8 in view of their deferred use.

10. The method according to claim 1, implemented in a therapeutic protocol including re-injecting lymphocytes on a human or animal subject, characterized in that the previously collected and preserved immunocompetent cells are submitted to an ex-vivo process before being re-injected.

11. The method according to claim 10, implemented in a therapeutic protocol including re-injecting lymphocytes T with a specific cytotoxic activity after ex-vivo expansion.

12. The method according to claim 10, implemented in a therapy protocol including a step for checking the harmlessness of the lymphocytes before re-injection.

13. The method according to claim 12, implemented in a therapy protocol including a checking step comprising a test of the oxidative stress of the lymphocytes before réinjection, wherein said lymphocytes are aggressed by free radicals.

14. The method according to claim 13, implemented in a therapy protocol including a oxidative stress test for checking various therapy ways for an ex vivo processing and suitability of said therapy ways with the concerned human or animal subject.

15. The method according to claim 10, implemented in a therapy protocol including an ex vivo processing between lymphocytes and a vaccine before re-injection.

16. The method according to claim 10, implemented in a therapy protocol including an ex vivo processing for an allergic desensitization of the lymphocytes before re-injection.

17. The method according to claim 10, implemented in a therapy protocol including a step for re-injecting lymphocytes by the lymphatic way.

18. The method according to claim 10, implemented in a therapy protocol for transfusing blood from a donor to a receiver, said protocol including

substituting lymphocytes from said donor by lymphocytes from said receiver.

19. The method according to claim 1, implemented in a gene therapy protocol.

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20. The method according to claim 1, characterized in that it further comprises, before the step for cryo-preserving a batch of immunocompetent cells, an initial step for cryogenizing said batch in view of annihilating antibodies present within said batch.

21. The method according to claim 20, characterized in that it further comprises, before any re-use of a batch of immunocompetent cells previously collected, a step for checking the annihilation of the antibodies within said batch.

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22. The method according to claim 1, characterized in that it further comprises, during a sequence for conditioning a batch of immunocompetent cells previously collected, a step for immunomagnetically selecting purified lymphocytes or monocytes.

23. A system for managing batches of immunocompetent cells collected from human or animal subjects for their deferred use, implementing the method according to claim 1, said system comprising for each of said human or animal subjects:

- means for conditioning and preserving batches of immunocompetent cells successively collected, into one or more storage centers, and
- means for constituting and enhancing from said collected batches a personal library of immunocompetent cells, said personal library cumulating a sum of immunity information stored in the collected immunocompetent cells,

characterized in that it further comprises:

- means for gathering information that are characteristic of said human or animal subject's status, before or during immunocompetent cells collection, and
- means for processing said status-characterizing information in view of determining parameters for a deferred-use of immunocompetent cells from said human or animal subject's personal library.

24. The system according to claim 23, characterized in that it further comprises means for getting status-characterizing by processing a blood sample collected on said human or animal subject.

25. The system according to claim 24, characterized in that it further comprises means for getting bio-electronic information by processing respective measures of the pH, the oxidation-reduction potential and the resistivity of blood previously collected on said human or animal subject.

26. The system according to claim 23, characterized in that it further comprises means for getting information by processing sensible crystallization images of blood previously collected on said human or animal subject.

27. The system according to claim 23, characterized in that it further comprises means for getting information from a capillary study on elements of said human or animal subject's hair system.

28. The system according to claim 23, characterized in that it further comprises means for controlling and enhancing an expert system from information characteristic of the status of human or animal subjects and from immunity information stored in said human or animal subject's immunocompetent cells, in view of determining parameters for deferred-use protocols.

29. the system according to claim 28, characterized in that it further comprises means for providing an interpretation of said human or animal subject's status-characterizing information and said immunity information, with respect of a particular gene.

30. The system according to claim 23, characterized in that it further comprises means for providing, from status-characterizing information, a determination of respective optimal proportions for different immunocompetent cells in view of their deferred use.

31. The system according to claim 30, characterized in that the determination means comprise means for determining an optimal ration between lymphocytes T4 and T8 in view of their deferred use.

32. A therapy method comprising a step of re-injecting immunocompetent cells in the body of a human or animal subject, said immunocompetent cells having been previously collected during one or more collecting steps from said human or animal subject, and then conditioned, preserved and stored, and constituting a personal library cumulating a sum of immunity information stored in said collected immunocompetent cells, characterized in that it is controlled by a deferred-use protocol for said immunocompetent cells which includes parameters obtained by processing immunity information stored in said immunocompetent cells and information characteristic of the status of said human or animal subject, said characteristic information having been gathered before or during the one or more collecting steps.

33. The therapy method according to claim 32, including re-injecting lymphocytes on a human or animal subject, wherein the previously collected and preserved immunocompetent cells are submitted to an ex-vivo process before being re-injected.

34. The therapy method of claim 33, wherein lymphocytes T with a specific cytotoxic activity are re-injected after ex-vivo expansion.

35. A method for determining parameters of a protocol for a deferred use of immunocompetent cells from a human or animal subject's personal library, said personal library cumulating a sum of immunity information stored in the immunocompetent cells successively collected and conditioned under the form of batches preserved in one or more storage centers, characterized in that said method comprises:

- measuring physical and/or biological characteristics done on samples of fluid and/or hair from said human or animal subject before or during the collection of immunocompetent cells,
- collecting information characteristic of said human or animal subject's status resulting from said measurements,
- processing said characteristic information in an information system for determining parameters of said deferred-use protocol, and
- storing said processed information in a cell management data base.

36. A system for determining parameters of a protocol for a deferred use of immunocompetent cells from a human or animal subject's personal library, said personal library cumulating a sum of immunity information stored in the immunocompetent cells successively collected and conditioned under the form of batches preserved in one or more storage centers, characterized in that said system comprises:

- means for measuring physical and/or biological characteristics done on samples of fluid and/or hair from said human or animal subject before or during the collection of immunocompetent cells,
- means for collecting information characteristic of said human or animal subject's status resulting from said measurements,

- means for processing said characteristic information in an information system to determine parameters of said deferred-use protocol, and
- means for storing said processed information in a cell management data base.

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